

## 42 U.S. Code § 9620. Federal facilities

U.S. Code   Notes   Authorities (CFR)

### **(a) APPLICATION OF CHAPTER TO FEDERAL GOVERNMENT**

#### **(1) IN GENERAL**

Each department, agency, and instrumentality of the United States (including the executive, legislative, and judicial branches of government) shall be subject to, and comply with, this chapter in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity, including liability under section 9607 of this title. Nothing in this section shall be construed to affect the liability of any person or entity under sections 9606 and 9607 of this title.

#### **(2) APPLICATION OF REQUIREMENTS TO FEDERAL FACILITIES**

All guidelines, rules, regulations, and criteria which are applicable to preliminary assessments carried out under this chapter for facilities at which hazardous substances are located, applicable to evaluations of such facilities under the National Contingency Plan, applicable to inclusion on the National Priorities List, or applicable to remedial actions at such facilities shall also be applicable to facilities which are owned or operated by a department, agency, or instrumentality of the United States in the same manner and to the extent as such guidelines, rules, regulations, and criteria are applicable to other facilities. No department, agency, or instrumentality of the United States may adopt or utilize any such guidelines, rules, regulations, or criteria which are inconsistent with the guidelines, rules, regulations, and criteria established by the Administrator under this chapter.

#### **(3) EXCEPTIONS**

This subsection shall not apply to the extent otherwise provided in this section with respect to applicable time periods. This subsection shall also not apply to any requirements relating to bonding, insurance, or financial responsibility. Nothing in this chapter shall be construed to require a State to comply with section 9604(c)(3) of this title in the case of a facility which is owned or operated by any department, agency, or instrumentality of the United States.

#### **(4) STATE LAWS**

State laws concerning removal and remedial action, including State laws regarding enforcement, shall apply to removal and remedial action at facilities owned or operated by a department, agency, or instrumentality of the United States or facilities that are the subject of a deferral under subsection (b)(3)(C) when such facilities are not included on the National

of a facility under subsection (1)(3)(C) when such facilities are not included on the National Priorities List. The preceding sentence shall not apply to the extent a State law would apply

any standard or requirement to such facilities which is more stringent than the standards and requirements applicable to facilities which are not owned or operated by any such department, agency, or instrumentality.

**(b) NOTICE**

Each department, agency, and instrumentality of the United States shall add to the inventory of Federal agency hazardous waste facilities required to be submitted under section 3016 of the Solid Waste Disposal Act [42 U.S.C. 6937] (in addition to the information required under section 3016(a)(3) of such Act [42 U.S.C. 6937(a)(3)]) information on contamination from each facility owned or operated by the department, agency, or instrumentality if such contamination affects contiguous or adjacent property owned by the department, agency, or instrumentality or by any other person, including a description of the monitoring data obtained.

**(c) FEDERAL AGENCY HAZARDOUS WASTE COMPLIANCE DOCKET** The Administrator shall establish a special Federal Agency Hazardous Waste Compliance Docket (hereinafter in this section referred to as the "docket") which shall contain each of the following:

**(1)** All information submitted under section 3016 of the Solid Waste Disposal Act [42 U.S.C. 6937] and subsection (b) of this section regarding any Federal facility and notice of each subsequent action taken under this chapter with respect to the facility.

**(2)** Information submitted by each department, agency, or instrumentality of the United States under section 3005 or 3010 of such Act [42 U.S.C. 6925, 6930].

**(3)** Information submitted by the department, agency, or instrumentality under section 9603 of this title.

The docket shall be available for public inspection at reasonable times. Six months after establishment of the docket and every 6 months thereafter, the Administrator shall publish in the Federal Register a list of the Federal facilities which have been included in the docket during the immediately preceding 6-month period. Such publication shall also indicate where in the appropriate regional office of the Environmental Protection Agency additional information may be obtained with respect to any facility on the docket. The Administrator shall establish a program to provide information to the public with respect to facilities which are included in the docket under this subsection.

**(d) ASSESSMENT AND EVALUATION**

**(1) IN GENERAL** The Administrator shall take steps to assure that a preliminary assessment is conducted for each facility on the docket. Following such preliminary assessment, the Administrator shall, where appropriate—

**(A)** evaluate such facilities in accordance with the criteria established in accordance with section 9605 of this title under the National Contingency Plan for determining priorities among releases; and

**(B)** include such facilities on the National Priorities List maintained under such plan if the facility meets such criteria.

**(2) APPLICATION OF CRITERIA**

**(A) In general**

Subject to subparagraph (B), the criteria referred to in paragraph (1) shall be applied in the same manner as the criteria are applied to facilities that are owned or operated by persons other than the United States.

**(B) Response under other law**

It shall be an appropriate factor to be taken into consideration for the purposes of section 9605(a)(8)(A) of this title that the head of the department, agency, or instrumentality that owns or operates a facility has arranged with the Administrator or appropriate State authorities to respond appropriately, under authority of a law other than this chapter, to a release or threatened release of a hazardous substance.

**(3) COMPLETION**

Evaluation and listing under this subsection shall be completed in accordance with a reasonable schedule established by the Administrator.

**(e) REQUIRED ACTION BY DEPARTMENT****(1) RI/FS**

Not later than 6 months after the inclusion of any facility on the National Priorities List, the department, agency, or instrumentality which owns or operates such facility shall, in consultation with the Administrator and appropriate State authorities, commence a remedial investigation and feasibility study for such facility. In the case of any facility which is listed on such list before October 17, 1986, the department, agency, or instrumentality which owns or operates such facility shall, in consultation with the Administrator and appropriate State authorities, commence such an investigation and study for such facility within one year after October 17, 1986. The Administrator and appropriate State authorities shall publish a timetable and deadlines for expeditious completion of such investigation and study.

**(2) COMMENCEMENT OF REMEDIAL ACTION; INTERAGENCY AGREEMENT**

The Administrator shall review the results of each investigation and study conducted as provided in paragraph (1). Within 180 days thereafter, the head of the department, agency, or instrumentality concerned shall enter into an interagency agreement with the Administrator for the expeditious completion by such department, agency, or instrumentality of all necessary remedial action at such facility. Substantial continuous physical onsite remedial action shall be commenced at each facility not later than 15 months after completion of the investigation and study. All such interagency agreements, including review of alternative remedial action plans and selection of remedial action, shall comply with the public participation requirements of section 9617 of this title.

**(3) COMPLETION OF REMEDIAL ACTIONS**

Remedial actions at facilities subject to interagency agreements under this section shall be completed as expeditiously as practicable. Each agency shall include in its annual budget submissions to the Congress a review of alternative agency funding which could be used to provide for the costs of remedial action. The budget submission shall also include a statement of the hazard posed by the facility to human health, welfare, and the environment and identify the specific consequences of failure to begin and complete

remedial action.

**(4) CONTENTS OF AGREEMENT** Each interagency agreement under this subsection shall include, but shall not be limited to, each of the following:

- (A) A review of alternative remedial actions and selection of a remedial action by the head of the relevant department, agency, or instrumentality and the Administrator or, if unable to reach agreement on selection of a remedial action, selection by the Administrator.
- (B) A schedule for the completion of each such remedial action.
- (C) Arrangements for long-term operation and maintenance of the facility.

**(5) ANNUAL REPORT** Each department, agency, or instrumentality responsible for compliance with this section shall furnish an annual report to the Congress concerning its progress in implementing the requirements of this section. Such reports shall include, but shall not be limited to, each of the following items:

- (A) A report on the progress in reaching interagency agreements under this section.
- (B) The specific cost estimates and budgetary proposals involved in each interagency agreement.
- (C) A brief summary of the public comments regarding each proposed interagency agreement.
- (D) A description of the instances in which no agreement was reached.
- (E) A report on progress in conducting investigations and studies under paragraph (1).
- (F) A report on progress in conducting remedial actions.
- (G) A report on progress in conducting remedial action at facilities which are not listed on the National Priorities List.

With respect to instances in which no agreement was reached within the required time period, the department, agency, or instrumentality filing the report under this paragraph shall include in such report an explanation of the reasons why no agreement was reached. The annual report required by this paragraph shall also contain a detailed description on a State-by-State basis of the status of each facility subject to this section, including a description of the hazard presented by each facility, plans and schedules for initiating and completing response action, enforcement status (where appropriate), and an explanation of any postponements or failure to complete response action. Such reports shall also be submitted to the affected States.

**(6) SETTLEMENTS WITH OTHER PARTIES**

If the Administrator, in consultation with the head of the relevant department, agency, or instrumentality of the United States, determines that remedial investigations and feasibility studies or remedial action will be done properly at the Federal facility by another potentially responsible party within the deadlines provided in paragraphs (1), (2), and (3) of this subsection, the Administrator may enter into an agreement with such party under section 9622 of this title(relating to settlements). Following approval by the Attorney General of any such agreement relating to a remedial action, the agreement shall be entered in the

appropriate United States district court as a consent decree under section 9606 of this title.

**(f) STATE AND LOCAL PARTICIPATION**

The Administrator and each department, agency, or instrumentality responsible for compliance with this section shall afford to relevant State and local officials the opportunity to participate in the planning and selection of the remedial action, including but not limited to the review of all applicable data as it becomes available and the development of studies, reports, and action plans. In the case of State officials, the opportunity to participate shall be provided in accordance with section 9621 of this title.

**(g) TRANSFER OF AUTHORITIES**

Except for authorities which are delegated by the Administrator to an officer or employee of the Environmental Protection Agency, no authority vested in the Administrator under this section may be transferred, by executive order of the President or otherwise, to any other officer or employee of the United States or to any other person.

**(h) PROPERTY TRANSFERRED BY FEDERAL AGENCIES**

**(1) NOTICE**

After the last day of the 6-month period beginning on the effective date of regulations under paragraph (2) of this subsection, whenever any department, agency, or instrumentality of the United States enters into any contract for the sale or other transfer of real property which is owned by the United States and on which any hazardous substance was stored for one year or more, known to have been released, or disposed of, the head of such department, agency, or instrumentality shall include in such contract notice of the type and quantity of such hazardous substance and notice of the time at which such storage, release, or disposal took place, to the extent such information is available on the basis of a complete search of agency files.

**(2) FORM OF NOTICE; REGULATIONS**

Notice under this subsection shall be provided in such form and manner as may be provided in regulations promulgated by the Administrator. As promptly as practicable after October 17, 1986, but not later than 18 months after October 17, 1986, and after consultation with the Administrator of the General Services Administration, the Administrator shall promulgate regulations regarding the notice required to be provided under this subsection.

**(3) CONTENTS OF CERTAIN DEEDS**

**(A) In general** After the last day of the 6-month period beginning on the effective date of regulations under paragraph (2) of this subsection, in the case of any real property owned by the United States on which any hazardous substance was stored for one year or more, known to have been released, or disposed of, each deed entered into for the transfer of such property by the United States to any other person or entity shall contain —

**(i)** to the extent such information is available on the basis of a complete search of agency files—

**(I)** a notice of the type and quantity of such hazardous substances,

**(II)** notice of the time at which such storage, release, or disposal took place, and

**(III)** a description of the remedial action taken, if any;

**(ii) a covenant warranting that—**

**(I)** all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer, and

**(II)** any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States; and

**(iii)** a clause granting the United States access to the property in any case in which remedial action or corrective action is found to be necessary after the date of such transfer.

**(B) Covenant requirements**

For purposes of subparagraphs (A)(ii)(I) and (C)(iii), all remedial action described in such subparagraph has been taken if the construction and installation of an approved remedial design has been completed, and the remedy has been demonstrated to the Administrator to be operating properly and successfully. The carrying out of long-term pumping and treating, or operation and maintenance, after the remedy has been demonstrated to the Administrator to be operating properly and successfully does not preclude the transfer of the property. The requirements of subparagraph (A)(ii) shall not apply in any case in which the person or entity to whom the real property is transferred is a potentially responsible party with respect to such property. The requirements of subparagraph (A)(ii) shall not apply in any case in which the transfer of the property occurs or has occurred by means of a lease, without regard to whether the lessee has agreed to purchase the property or whether the duration of the lease is longer than 55 years. In the case of a lease entered into after September 30, 1995, with respect to real property located at an installation approved for closure or realignment under a base closure law, the agency leasing the property, in consultation with the Administrator, shall determine before leasing the property that the property is suitable for lease, that the uses contemplated for the lease are consistent with protection of human health and the environment, and that there are adequate assurances that the United States will take all remedial action referred to in subparagraph (A)(ii) that has not been taken on the date of the lease.

**(C) Deferral**

**(i) In general** The Administrator, with the concurrence of the Governor of the State in which the facility is located (in the case of real property at a Federal facility that is listed on the National Priorities List), or the Governor of the State in which the facility is located (in the case of real property at a Federal facility not listed on the National Priorities List) may defer the requirement of subparagraph (A)(ii)(I) with respect to the property if the Administrator or the Governor, as the case may be, determines that the property is suitable for transfer, based on a finding that—

**(I)** the property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment;

**(II)** the deed or other agreement proposed to govern the transfer between the United States and the transferee of the property contains the assurances set forth

in clause (ii);

**(III)** the Federal agency requesting deferral has provided notice, by publication in a newspaper of general circulation in the vicinity of the property, of the proposed transfer and of the opportunity for the public to submit, within a period of not less than 30 days after the date of the notice, written comments on the suitability of the property for transfer; and

**(IV)** the deferral and the transfer of the property will not substantially delay any necessary response action at the property.

**(ii) Response action assurances** With regard to a release or threatened release of a hazardous substance for which a Federal agency is potentially responsible under this section, the deed or other agreement proposed to govern the transfer shall contain assurances that—

**(I)** provide for any necessary restrictions on the use of the property to ensure the protection of human health and the environment;

**(II)** provide that there will be restrictions on use necessary to ensure that required remedial investigations, response action, and oversight activities will not be disrupted;

**(III)** provide that all necessary response action will be taken and identify the schedules for investigation and completion of all necessary response action as approved by the appropriate regulatory agency; and

**(IV)** provide that the Federal agency responsible for the property subject to transfer will submit a budget request to the Director of the Office of Management and Budget that adequately addresses schedules for investigation and completion of all necessary response action, subject to congressional authorizations and appropriations.

### **(iii) Warranty**

When all response action necessary to protect human health and the environment with respect to any substance remaining on the property on the date of transfer has been taken, the United States shall execute and deliver to the transferee an appropriate document containing a warranty that all such response action has been taken, and the making of the warranty shall be considered to satisfy the requirement of subparagraph (A)(ii)(I).

### **(iv) Federal responsibility**

A deferral under this subparagraph shall not increase, diminish, or affect in any manner any rights or obligations of a Federal agency (including any rights or obligations under this section and sections 9606 and 9607 of this title existing prior to transfer) with respect to a property transferred under this subparagraph.

## **(4) IDENTIFICATION OF UNCONTAMINATED PROPERTY**

**(A)** In the case of real property to which this paragraph applies (as set forth in subparagraph (E)), the head of the department, agency, or instrumentality of the United States with jurisdiction over the property shall identify the real property on which no hazardous substances and no petroleum products or their derivatives were known to have been released or disposed of. Such identification shall be based on an investigation

have been released or disposed of. Such identification shall be based on an investigation of the real property to determine or discover the obviousness of the presence or likely presence of a release or threatened release of any hazardous substance or any

petroleum product or its derivatives, including aviation fuel and motor oil, on the real property. The identification shall consist, at a minimum, of a review of each of the following sources of information concerning the current and previous uses of the real property:

- (i) A detailed search of Federal Government records pertaining to the property.
- (ii) Recorded chain of title documents regarding the real property.
- (iii) Aerial photographs that may reflect prior uses of the real property and that are reasonably obtainable through State or local government agencies.
- (iv) A visual inspection of the real property and any buildings, structures, equipment, pipe, pipeline, or other improvements on the real property, and a visual inspection of properties immediately adjacent to the real property.
- (v) A physical inspection of property adjacent to the real property, to the extent permitted by owners or operators of such property.
- (vi) Reasonably obtainable Federal, State, and local government records of each adjacent facility where there has been a release of any hazardous substance or any petroleum product or its derivatives, including aviation fuel and motor oil, and which is likely to cause or contribute to a release or threatened release of any hazardous substance or any petroleum product or its derivatives, including aviation fuel and motor oil, on the real property.
- (vii) Interviews with current or former employees involved in operations on the real property.

Such identification shall also be based on sampling, if appropriate under the circumstances. The results of the identification shall be provided immediately to the Administrator and State and local government officials and made available to the public.

(B) The identification required under subparagraph (A) is not complete until concurrence in the results of the identification is obtained, in the case of real property that is part of a facility on the National Priorities List, from the Administrator, or, in the case of real property that is not part of a facility on the National Priorities List, from the appropriate State official. In the case of a concurrence which is required from a State official, the concurrence is deemed to be obtained if, within 90 days after receiving a request for the concurrence, the State official has not acted (by either concurring or declining to concur) on the request for concurrence.

(C)

- (i) Except as provided in clauses (ii), (iii), and (iv), the identification and concurrence required under subparagraphs (A) and (B), respectively, shall be made at least 6 months before the termination of operations on the real property.
- (ii) In the case of real property described in subparagraph (E)(i)(II) on which operations have been closed or realigned or scheduled for closure or realignment pursuant to a base closure law described in subparagraph (E)(ii)(I) or (E)(ii)(II) by



October 19, 1992, the identification and concurrence required under subparagraphs (A) and (B), respectively, shall be made not later than 18 months after October 19, 1992.

**(iii)** In the case of real property described in subparagraph (E)(i)(II) on which operations are closed or realigned or become scheduled for closure or realignment pursuant to the base closure law described in subparagraph (E)(ii)(II) after October 19, 1992, the identification and concurrence required under subparagraphs (A) and (B), respectively, shall be made not later than 18 months after the date by which a joint resolution disapproving the closure or realignment of the real property under section 2904(b) of such base closure law must be enacted, and such a joint resolution has not been enacted.

**(iv)** In the case of real property described in subparagraphs (E)(i)(II) on which operations are closed or realigned pursuant to a base closure law described in subparagraph (E)(ii)(III) or (E)(ii)(IV), the identification and concurrence required under subparagraphs (A) and (B), respectively, shall be made not later than 18 months after the date on which the real property is selected for closure or realignment pursuant to such a base closure law.

**(D)** In the case of the sale or other transfer of any parcel of real property identified under subparagraph (A), the deed entered into for the sale or transfer of such property by the United States to any other person or entity shall contain—

**(i)** a covenant warranting that any response action or corrective action found to be necessary after the date of such sale or transfer shall be conducted by the United States; and

**(ii)** a clause granting the United States access to the property in any case in which a response action or corrective action is found to be necessary after such date at such property, or such access is necessary to carry out a response action or corrective action on adjoining property.

**(E)**

**(i)** This paragraph applies to—

**(I)** real property owned by the United States and on which the United States plans to terminate Federal Government operations, other than real property described in subclause (II); and

**(II)** real property that is or has been used as a military installation and on which the United States plans to close or realign military operations pursuant to a base closure law.

**(ii)** For purposes of this paragraph, the term “base closure law” includes the following:

**(I)** Title II of the Defense Authorization Amendments and Base Closure and Realignment Act (Public Law 100-526; 10 U.S.C. 2687 note).

**(II)** The Defense Base Closure and Realignment Act of 1990 (part A of title XXIX of Public Law 101-510; 10 U.S.C. 2687 note).

**(III)** Section 2687 of title 10.

**(IV)** Any provision of law authorizing the closure or realignment of a military installation enacted on or after October 19, 1992.

**(F)** Nothing in this paragraph shall affect, preclude, or otherwise impair the termination of Federal Government operations on real property owned by the United States.

**(5) NOTIFICATION OF STATES REGARDING CERTAIN LEASES**

In the case of real property owned by the United States, on which any hazardous substance or any petroleum product or its derivatives (including aviation fuel and motor oil) was stored for one year or more, known to have been released, or disposed of, and on which the United States plans to terminate Federal Government operations, the head of the department, agency, or instrumentality of the United States with jurisdiction over the property shall notify the State in which the property is located of any lease entered into by the United States that will encumber the property beyond the date of termination of operations on the property. Such notification shall be made before entering into the lease and shall include the length of the lease, the name of person to whom the property is leased, and a description of the uses that will be allowed under the lease of the property and buildings and other structures on the property.

**(i) OBLIGATIONS UNDER SOLID WASTE DISPOSAL ACT**

Nothing in this section shall affect or impair the obligation of any department, agency, or instrumentality of the United States to comply with any requirement of the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] (including corrective action requirements).

**(j) NATIONAL SECURITY**

**(1) SITE SPECIFIC PRESIDENTIAL ORDERS**

The President may issue such orders regarding response actions at any specified site or facility of the Department of Energy or the Department of Defense as may be necessary to protect the national security interests of the United States at that site or facility. Such orders may include, where necessary to protect such interests, an exemption from any requirement contained in this subchapter or under title III of the Superfund Amendments and Reauthorization Act of 1986 [42 U.S.C. 11001 et seq.] with respect to the site or facility concerned. The President shall notify the Congress within 30 days of the issuance of an order under this paragraph providing for any such exemption. Such notification shall include a statement of the reasons for the granting of the exemption. An exemption under this paragraph shall be for a specified period which may not exceed one year. Additional exemptions may be granted, each upon the President's issuance of a new order under this paragraph for the site or facility concerned. Each such additional exemption shall be for a specified period which may not exceed one year. It is the intention of the Congress that whenever an exemption is issued under this paragraph the response action shall proceed as expeditiously as practicable. The Congress shall be notified periodically of the progress of any response action with respect to which an exemption has been issued under this paragraph. No exemption shall be granted under this paragraph due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.

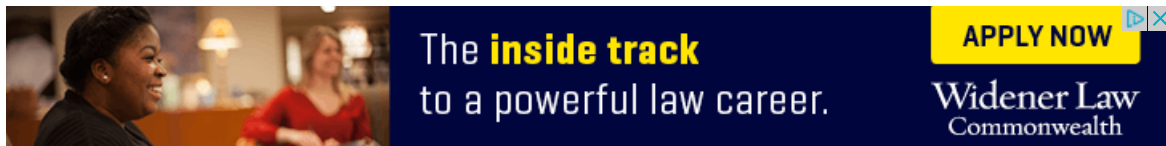
**(2) CLASSIFIED INFORMATION**

Notwithstanding any other provision of law, all requirements of the Atomic Energy Act [42 U.S.C. 2014, et seq.] and all Executive orders concerning the handling of restricted data and

U.S.C. 2011 et seq.] and all Executive orders concerning the handling or restricted data and national security information, including "need to know" requirements, shall be applicable to

any grant of access to classified information under the provisions of this chapter or under title III of the Superfund Amendments and Reauthorization Act of 1986 [42 U.S.C. 11001 et seq.].

(Pub. L. 96-510, title I, § 120, as added Pub. L. 99-499, title I, § 120(a), Oct. 17, 1986, 100 Stat. 1666; amended Pub. L. 102-426, §§ 3-5, Oct. 19, 1992, 106 Stat. 2175-2177; Pub. L. 104-106, div. B, title XXVIII, § 2834, Feb. 10, 1996, 110 Stat. 559; Pub. L. 104-201, div. A, title III, §§ 330, 331, 334, Sept. 23, 1996, 110 Stat. 2484, 2486.)



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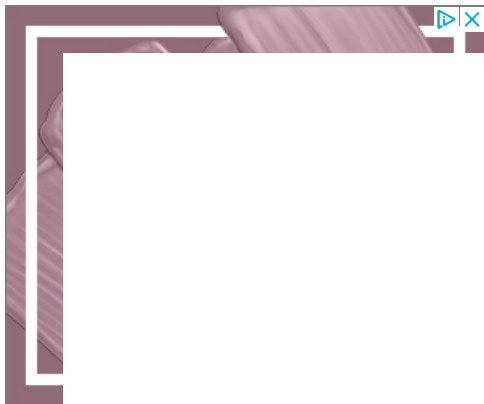
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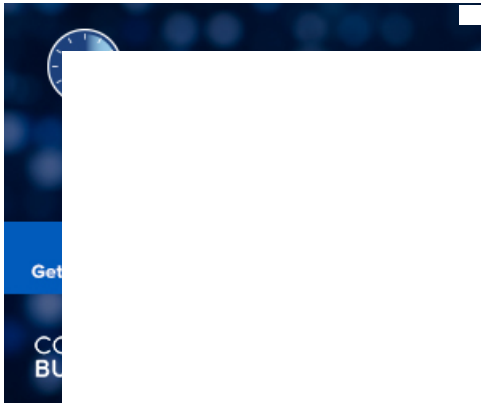
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**CC:** Morefield, Deborah A CIV OSD OUSD ATL (US); Long, Alexandria D CIV OSD OUSD ATL (US); Parker, Amy [USA]; Routt, Christine [USA]  
**Sent:** 5/13/2015 12:51:45 PM  
**Subject:** DoD PFC talking points for mtg w/EPA  
**Attachments:** Emerging Contaminants Visuals 05122015.pptx; PFOA timeline\_may2015.docx; Talking Points for PFC meeting with EPA\_May2015.docx

Good morning,

Attached are the proposed talking points for the meeting with EPA regarding PFCs. Please look closely at item #2 on the DERP procedures. Also, item #4 we tried to capture a universe of sites - I was hoping these numbers would show we do not have a big issue however with the large number for the AF it may not be wise to go this path.

Also, the attached power point to show what occurs if an EC is discovered at some point during cleanup process and how DoD incorporates into cleanup and the 2nd slide illustrates how discovery of an EC release to the environment fits in the CERCLA. The 3rd slide just reinforces DoD policy and procedures are based on the ECOS trigger paper. Thoughts on using the slides to support the DoD discussion?

For backup, I also included a timeline of events related to PFOS/PFOA - I know the format needs work but just wanted to capture a general timeline of events.

Look forward to your thoughts/edits. Appreciate the discussion and quick turnaround.

VR,  
Deb

deborah morefield, CHMM  
OASD (EI&E)/ESOH  
(v) [REDACTED]  
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## Talking Points for DoD – EPA Discussion on Emergent Contaminants: PFOS/PFOA

1. Drinking water – Sampling based on the Safe Drinking Water Act (SDWA) Unregulated Contaminant Monitoring Rule 3 (UCMR3) and if there is a risk takes appropriate action.
2. Defense Environmental Restoration Program (DERP) procedures
  - Review current inventory of potential sources and review records for other potential sources
  - Prioritize sites where there has been a release or suspected release based on risk
  - Perform site investigations, characterize sites, and implement containment measures, where necessary
  - Concern there is no in situ technology to address so contain contamination
3. Concern that there is no groundwater standard or toxicity value
  - Follow hierarchy of toxicity values outlined in DoD-EPA-ECOS Issue paper on “Identification and Selection of Toxicity Values/Criteria for CERCLA and Hazardous Waste Site Risk Assessments in the Absence of IRIS Values,” April 23, 2007, which was incorporated into DoDI 4715.18, “Emerging Contaminants (ECs),” June 11, 2009 and DoDM 4715.20, “Defense Environmental Restoration Program (DERP) Management,” March 9, 2012
  - Can use the reference dose (RfD) to develop a risk assessment-based cleanup level on a site-specific basis
4. Number of sites/potential sites:
  - Navy - approximately 350 sites; about half are existing sites.
  - AF - about 1,000 sites; about 1/3 are existing sites. It’s unclear whether this include BRAC or not; AF BRAC has already added 50 new sites that are really duplicate fire training area sites.
  - Army – [Need Army to provide # of sites] sites.
  - FUDS - PFCs weren’t used much at FUDS properties because they were introduced in the 1970s and FUDS properties were transferred from DoD control prior to October 17, 1986.

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**From:** Fairlie, Catherine A CIV USAF SAF-IE (US)  
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**Sent:** 5/15/2015 11:02:07 AM  
**Subject:** RE: DoD PFC talking points for mtg w/EPA  
**Attachments:** POINT PAPER - PFOA\_PFOS Risk Levels.docx; POINT PAPER - PHAs as Cleanup Levels vs 4.docx; POINT PAPER - TBCs vs ARARs.docx; SAF IE = Emerging Contaminants Visuals 05122015.pptx; SAF IE PFOA timeline\_may2015.docx; SAF IE Talking Points for PFC meeting with EPA\_May2015.docx

Deb,  
Attached are the AF's inputs for the upcoming meeting with the EPA. On the draft talking points Miranda Brannon clarified differences between the SDWA and UCMR3. Our lawyers, toxicologists, and SME's also made some recommendations. Also included are point papers we developed for Mr. Correll and he suggested be sent out to the other DAS's.  
If you have any questions please let me know  
Thanks, cat

-----Original Message-----

From: Morefield, Deborah A CIV OSD OUSD ATL (US)  
Sent: Wednesday, May 13, 2015 8:52 AM  
To: Mach, Richard G Jr CIV USN (US); Tesner, John E CIV USARMY HQDA ASA IEE (US); Fairlie, Catherine A CIV USAF SAF-IE (US); paul.j.yaroschak@usace.army.mil; Miller, Edmund D CIV OSD OUSD ATL (US)  
Cc: Morefield, Deborah A CIV OSD OUSD ATL (US); Long, Alexandria D CIV OSD OUSD ATL (US); Parker, Amy [USA]; Routt, Christine [USA]  
Subject: DoD PFC talking points for mtg w/EPA  
Importance: High

Good morning,

Attached are the proposed talking points for the meeting with EPA regarding PFCs. Please look closely at item #2 on the DERP procedures. Also, item #4 we tried to capture a universe of sites - I was hoping these numbers would show we do not have a big issue however with the large number for the AF it may not be wise to go this path.

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For backup, I also included a timeline of events related to PFOS/PFOA - I know the format needs work but just wanted to capture a general timeline of events.

Look forward to your thoughts/edits. Appreciate the discussion and quick turnaround.

VR,  
Deb

deborah morefield, CHMM  
OASD (EI&E)/ESOH  
(v) [REDACTED]  
(fax) [REDACTED]

US00022228

## Talking Points for DoD – EPA Discussion on Emergent Contaminants: PFOS/PFOA

### 1. Drinking water –

— Sampling based on source, pathway, receiver model the Safe Drinking Water Act (SDWA) Unregulated Contaminant Monitoring Rule 3 (UCMR3) and, if there is an acceptable risk and a risk completed pathway to human exposure takes appropriate action.

- Unregulated Contaminant Monitoring Rule 3 (UCMR3) – separate program, occurring at all Public Water Systems (PWS) serving more than 3,300 people nationwide regardless of any co-located cleanup sites containing PFOS/PFOA; PFOS/PFOA are 2 of 30 chemicals monitored to collect data to support EPA's determination of whether to set drinking water standards for these
- Key Point: Under UCMR3, if a PWS exceeds the Reference Concentration for a contaminant, there is no required action, because these are unregulated. For PFOS/PFOA, the Ref. Conc. = provisional health advisories; therefore, if a PWS exceeds the public health advisories under UCMR3, their only required action is to publish the results of the monitoring in their annual drinking water consumer confidence report due in July. Publicly available UCMR3 data show municipal PWSs in the United States have detected PFOS at levels over the provisional health advisory and are conducting business as usual.
- Questions for EPA:

i. Given the above Key Point, why the disparity between EPA's Cleanup Office and Drinking Water Office with respect to monitoring for PFOS/PFOA in drinking water?

4-ii. Will DoD be expected to sample for and treat to reduce levels of all UCMR3 contaminants with EPA health advisories? (note: 1,4, dioxane, Halon 1011, molybdenum, 1,2,3-Trichloropropane have EPA drinking water advisories (not provisional) and are also on UCMR3)

### 2. Defense Environmental Restoration Program (DERP) procedures

- Review current inventory of potential sources and review records for other potential sources
- Prioritize sites where there has been a release or suspected release based on risk
- Perform site investigations, characterize sites, and implement containment measures to prevent exposure, where necessary
- Concern there is no in situ technology to address so contain contamination

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**Comment [RTECUA11]:** The phrase "containment measures" implies that active measure may have to be taken to control a plume. There is no mention of "containment" in the EC DODI, DODI 4715.18 or the DERP manual. However, the EC AFI does state the services should "mitigate" risks associated with ECs. Further, the phrase "measures to prevent exposure" is so broad that it would include LUCs, monitoring, providing alternative drinking water supplies and even containment in those cases in which a plume contaminated with ECs is fast approaching a municipal well (should that scenario be encountered).



3. Concern that there is no groundwater standard or tier 1 or 2 or “reliable” tier 3 toxicity value

- Follow hierarchy of toxicity values outlined in EPA OSWER Directive 9285.7, “Human Health Toxicity Values in Superfund Risk Assessments,” December 5, 2003, EPA OSWER Directive 9285.7-86, “Tier 3 Toxicity Value White Paper,” June 19, 2013, and DoD-EPA-ECOS Issue paper on “Identification and Selection of Toxicity Values/Criteria for CERCLA and Hazardous Waste Site Risk Assessments in the Absence of IRIS Values,” April 23, 2007, the first and third of which were incorporated into DoDI 4715.18, “Emerging Contaminants (ECs),” June 11, 2009 and DoDM 4715.20, “Defense Environmental Restoration Program (DERP) Management,” March 9, 2012
- No current listings for PFOS & PFOA in the “Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites”, which are risk-based concentrations protective for humans over a lifetime and used for initial site screening in the cleanup process. Per the RSL FAQ page, it states if there is no listing, there is no EPA toxicity value for it. Apparent disconnect between Office of Water and Superfund.
- Can use the Tier 3 reference dose (RfD, Office of Water) to develop a site-specific basis screening level to assess risk

**Comment [TMWGUAJ2]:** Our toxicologist do not consider EPA's Office of Water toxicity value for PFOA and PFOS to be sufficiently reliable and current to accurately and appropriately assess chronic risk in actual groundwater. While the provisional health advisory can be used as an action trigger for short term exposure to actual drinking water supplies, it's use as a cleanup to be considered (TBC) is not appropriate nor is the toxicity value reliable.

2.4. Number of sites/potential sites:

- Navy - approximately 350 sites; about half are existing sites.
- AF - about 1,000 sites; about 1/3 are existing sites. It's unclear whether this include BRAC or not; AF BRAC has already added 50 new sites that are really duplicate fire training area sites.
- Army – [Need Army to provide # of sites] sites.
- FUDS - PFCs weren't used much at FUDS properties because they were introduced in the 1970s and FUDS properties were transferred from DoD control prior to October 17, 1986.
- FUDS – PFCs weren't used much at FUDS properties because they were introduced in the 1970s and FUDS properties were transferred from DoD control prior to October 17, 1986.

**Comment [gcl3]:** Suggest the use issue should predominate here over dates. Otherwise it appears, based simply on dates of use and the 1986 date, there could be an issue.

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**From:** Morefield, Deborah A CIV OSD OUSD ATL (US)  
**To:** Fairlie, Catherine A CIV USAF SAF-IE (US); Mach, Richard CIV OASN (EI&E), ODASN (Environment); Tesner, John E CIV USARMY HQDA ASA IEE (US); paul.j.yaroschak [REDACTED]; Miller, Edmund D CIV OSD OUSD ATL (US); Ramsdell, Richard C CIV USARMY HQDA ACSIM (US); Mooney, Thomas F CTR USARMY HQDA ASA IEE (US)  
**CC:** Long, Alexandria D CIV OSD OUSD ATL (US); Parker, Amy [USA]; Routt, Christine [USA]; Brannon, Miranda S CIV USAF AFMSA (US); Morefield, Deborah A CIV OSD OUSD ATL (US)  
**Sent:** 5/18/2015 4:00:29 PM  
**Subject:** RE: DoD PFC talking points for mtg w/EPA  
**Attachments:** Notes Meeting with DoD on Emergent Contaminates\_May2015 v2.docx

Afternoon,

Based on my discussion with Maureen late Friday afternoon, she indicated she wanted a step-wise process with actual policy sections. The attached is the revised version I just forwarded to her for her consideration...I am forwarding to you as a heads up since tomorrow is the meeting.

The first 2 page contain the process and includes the applicable sections from the DoDI 4715.18 EC and DoDM 4715.20 DERP. The last 2 pages provide a simple summary of PFOA/PFOS initiatives/actions that occurred to identify PFOA/PFOS as a chemical of concern to be assessed as part of the emergent contaminate program.

I will let you know if Maureen has any edits or requests any additional information.

VR,  
Deb

deborah morefield, CHMM  
OASD (EI&E)/ESOH  
(v) [REDACTED]  
(fax) 703 695 2033

-----Original Message-----

**From:** Fairlie, Catherine A CIV USAF SAF-IE (US)  
**Sent:** Friday, May 15, 2015 7:02 AM  
**To:** Morefield, Deborah A CIV OSD OUSD ATL (US); Mach, Richard G Jr CIV USN (US); Tesner, John E CIV USARMY HQDA ASA IEE (US); paul.j.yaroschak [REDACTED]; Miller, Edmund D CIV OSD OUSD ATL (US)  
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US00022247

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Deb

deborah morefield, CHMM  
OASD (EI&E)/ESOH  
(v) [REDACTED]  
(fax, [REDACTED])



# Department of Defense **INSTRUCTION**

**NUMBER 4715.18**

June 11, 2009

Incorporating Change 2, August 31, 2018

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USD(A&S)

**SUBJECT:** Emerging Contaminants (ECs)

**References:** See Enclosure 1

1. **PURPOSE.** This Instruction establishes policy and assigns responsibilities for the identification, assessment, and risk management of ECs that have the potential to impact the DoD in accordance with the authority in DoD Directive (DoDD) 5134.01 (Reference (a)) and the guidance in DoDD 4715.1E, DoD Instruction 5000.02, and Defense Acquisition University Risk Management Guide (References (b), (c), and (d)).

2. **APPLICABILITY.** This Instruction:

a. Applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this Instruction as the "DoD Components").

b. Applies to the DoD activities and programs involving the development, production, use, storage, or release of chemicals and materials that can be considered ECs at DoD operations, activities, and installations in the United States.

c. Applies to the DoD managed response actions at formerly used defense sites.

d. Does not apply to:

(1) Contractor-owned or contractor-operated facilities.

(2) Radiological data collected under the Naval Nuclear Propulsion Program or other DoD radiological programs.

(3) Chemical, biological, radiological, nuclear, and explosive incident training or response programs.

3. DEFINITIONS. See Glossary.

4. POLICY. It is DoD policy that:

a. Chemicals and materials used, or planned to be used, by the DoD that meet the definition of an EC shall be identified as early as possible.

b. Risks to people, the environment, and DoD missions, programs, and resources shall be assessed and, when appropriate, actions shall be taken to reduce risks related to EC development, use, or release.

c. The DoD, where necessary, performs sampling, conducts site-specific risk assessments, and takes response actions for ECs released from DoD facilities in accordance with chapter 160 of title 10, United States Code (U.S.C.), (Reference (e), known as the “Defense Environmental Restoration Program”), and consistent with chapter 103 of title 42, U.S.C. (Reference (f), known as the “Comprehensive Environmental Response, Compensation, and Liability Act of 1980”), and the procedures in this Instruction.

d. Subject to appendix 2 to title 5, U.S.C. (Reference (g), known as the “Federal Advisory Committee Act”), the DoD shall work cooperatively and collaboratively with appropriate representatives from regulatory agencies, industry, and academia on ECs issues and initiatives.

5. RESPONSIBILITIES. See Enclosure 2.

6. PROCEDURES. See Enclosures 3 and 4.

7. RELEASABILITY. **Cleared for public release.** This Instruction is available on the Directives Division Website at <http://www.esd.whs.mil/DD/>.

8. SUMMARY OF CHANGE 2. This change reassigns the office of primary responsibility for this Instruction the Under Secretary of Defense for Acquisition and Sustainment in accordance with the July 13, 2018 Deputy Secretary of Defense Memorandum (Reference (h)).

9. EFFECTIVE DATE. This Instruction is effective June 11, 2009



Ashton B. Carter

Under Secretary of Defense

for Acquisition, Technology and Logistics

Enclosures

1. References
2. Responsibilities
3. Use of Provisional Toxicity Values
4. Initiation of Actions Related to EC Releases

Glossary

ENCLOSURE 1

REFERENCES

- (a) DoD Directive 5134.01, “Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)),” December 9, 2005, as amended
- (b) DoD Directive 4715.1E, “Environment, Safety, and Occupational Health (ESOH),” March 19, 2005
- (c) DoD Instruction 5000.02, “Operation of the Defense Acquisition System,” January 7, 2015, as amended
- (d) Defense Acquisition University, “Risk Management Guide for DoD Acquisition (Sixth Edition, Version 1.0),” August 2006
- (e) Chapter 160 of title 10, United States Code
- (f) Chapter 103 of title 42, United States Code, also
- (g) Appendix 2 to title 5, United States Code
- (h) Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018
- (i) DoD Instruction 5105.18, “DoD Intergovernmental and Intragovernmental Committee Management Program,” July 10, 2009, as amended
- (j) U.S. Environmental Protection Agency Web Site, “IRIS Substance Assessment Tracking System”<sup>1</sup>
- (k) California Environmental Protection Agency, Office of Environmental Health Hazard Assessment Web Site, “Toxicity Criteria Database”<sup>2</sup>
- (l) U.S. Department of Human and Health Services, Agency for Toxic Substances and Disease Registry Web Site, “Minimal Risk Levels”<sup>3</sup>
- (m) U.S. Environmental Protection Agency Web Site, “Health Effects Assessment Summary Table”<sup>4</sup>
- (n) U.S. Environmental Protection Agency EPA-505-B-04-900A/DTIC ADA 427785, “Uniform Federal Policy for Quality Assurance Project Plans: Evaluating, Assessing, and Documenting Environmental Data Collection and Use Program,” March 2005
- (o) U.S. Environmental Protection Agency EPA-505-F-03-00/DTIC ADA 39530, “Uniform Federal Policy for Implementing Environmental Quality Systems: Evaluating, Assessing, and Documenting Environmental Data Collection/Use and Technology Programs,” March 2005

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<sup>1</sup> Available at <http://cfpub.epa.gov/ncea/iristrac/index.cfm>

<sup>2</sup> Available at <http://www.oehha.ca.gov/risk/chemicalDB/index.asp>

<sup>3</sup> Available at <http://www.atsdr.cdc.gov/mrls/index.html>

<sup>4</sup> Available at <http://www.epa.gov/radiation/heast>

ENCLOSURE 2

RESPONSIBILITIES

1. ASSISTANT SECRETARY OF DEFENSE FOR ENERGY, INSTALLATIONS, AND ENVIRONMENT (ASD(EI&E)). The ASD(EI&E), under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), shall:

- a. Provide oversight and guidance to ensure the early identification, assessment, and mitigation of risks related to ECs.
- b. Invite the participation of Program Executive Offices and program managers (PMs), as appropriate, in the assessment of risks and implementation of risk management actions.
- c. Maintain a dynamic list of ECs with potential impacts on DoD personnel and functions.

2. DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR ENVIRONMENT, SAFETY, AND OCCUPATIONAL HEALTH (DASD(ESOH)). The DASD(ESOH), under the authority, direction, and control of the ASD(EI&E), shall:

- a. Develop and manage an EC program to:
  - (1) Provide early identification of EC issues.
  - (2) Conduct cross-Service, cross-system assessments of the impacts of ECs on DoD personnel, missions, and business functions. The impact assessments shall use information from other programs to the extent practical (e.g., safety and occupational health assessments).
  - (3) Develop, in coordination with the DoD Components, risk management options for potential investments by PMs for those ECs with high risk to the DoD.
  - (4) Maintain a “watch list” of ECs with potential high risks to the DoD and an “action list” of ECs with probable high risk to the Department.
- b. Ensure consultation with the DoD Components and appropriate OSD offices through a staff-level ECs Steering Group and an executive-level ECs Governance Council. The Governance Council shall comply with the requirements of DoDD 5105.18 (Reference (i)).
- c. Prepare budget requests and justifications to implement the ECs program.
- d. Provide updates to senior DoD leadership concerning newly identified risks and risks that could be reduced through proactive risk management actions.



e. Serve as the focal point for ECs issues with Federal and State agencies, industry, and academia.

f. Develop policies and prepare Congressional briefings and testimony as required.

3. DIRECTOR, DEFENSE LOGISTICS AGENCY (DLA). The Director, DLA, under the authority, direction, and control of the USD(AT&L), through the Deputy Under Secretary of Defense for Logistics and Materiel Readiness, shall provide data to the DASD(ESOH) related to National Stock Numbers and requisition history for chemicals and materials being assessed by the DASD(ESOH).

4. HEADS OF THE DOD COMPONENTS. The Heads of the DoD Components shall:

a. Comply with this Instruction.

b. Provide subject matter experts for specific ECs impact assessments when requested by the DASD(ESOH).

c. Provide representatives, as appropriate, for the ECs Steering Group and ECs Governance Council.

d. Plan, program, and budget, as appropriate, for the implementation of risk management actions needed to mitigate risks to human health, the environment, and DoD functions. These actions can include toxicological studies, materials substitution, research and development, testing and qualification of alternative materials and processes, source and scope of use studies, new analytical techniques, implementation of treatment and cleanup technologies, and deployment of new or improved personal protective equipment.

## ENCLOSURE 3

### USE OF PROVISIONAL TOXICITY VALUES

1. GENERAL. The identification of toxicity values is a crucial step in conducting site-specific risk assessments for contaminated sites. The identification of toxicity values for ECs presents special challenges.
2. HIERARCHY OF TOXICITY VALUES. The DoD shall use the hierarchy in paragraphs 2.a. through 2.c. of this enclosure for selecting toxicity values for ECs.
  - a. Tier 1 – U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS). The toxicity values listed on the EPA IRIS Web Site (Reference (j)), known as the “IRIS Substance Assessment Tracking System” or “IRIS Track”) have undergone rigorous peer review and are considered to be validated. The completion of IRIS assessments is a multi-step process including internal peer review, EPA program and regional office review, Federal interagency review, and external peer review with a public notice and comment period. The various steps are described in Reference (j).
  - b. Tier 2 – EPA Provisional Peer-Reviewed Toxicity Values (PPRTVs). The Office of Research and Development/National Center for Environmental Assessment/Superfund Health Risk Technical Support Center develops PPRTVs on a chemical-specific basis when requested by the EPA’s Superfund Program for use in site-specific risk assessments. However, the PPRTVs are developed in a shorter period of time than the IRIS assessments and, although these assessments undergo external peer review, this review may be more limited and does not include EPA and interagency review as is done with the IRIS assessments. Furthermore, their development typically includes a limited evaluation of information on mode of action, other toxicological end points, and other information that provides a better understanding of the toxicology of these chemicals. Often, the amount of relevant information on the toxicity of these chemicals is less because fewer studies have been conducted and reported. However, the PPRTVs are generally the best quantification of the dose-response scientific data that are available at the time they are developed because the PPRTVs utilize current information and methodologies.
  - c. Tier 3 – Other Toxicity Values. Tier 3 includes additional EPA and non-EPA sources of toxicity information. Priority should be given to sources of information that use sound science and are the most current, peer reviewed, transparent, and publicly available. Example sources for Tier 3 include the California State EPA Toxicity Criteria Database, the U.S. Department of Human and Health Services Minimal Risk Levels, and the EPA’s Health Effects Assessment Summary Table (References (k), (l), and (m)). Values may also be found by using an Internet search engine to search for “toxicity values” for a specific chemical.

3. TYPES OF ASSESSMENTS. The types of assessments that should be used to guide the selection of toxicity values in all cases are:

- a. Transparent assessments (in which toxicity values are derived) that clearly identify the information used and how it was used.
- b. Assessments that have been externally and independently peer reviewed, where reviewers and affiliations are identified. Other things being equal, assessments with more extensive peer review are preferred. Panel peer reviews are considered preferable to letter peer reviews.
- c. Assessments that were completed with a previously promulgated and publicly available methodology. Methodologies that were externally peer reviewed are preferred over those that were not externally peer reviewed.
- d. Assessments that consider the quality of studies used, including the statistical power or lack thereof to detect effects, corroborate data among pertinent studies, and make best use of all available science.
- e. Assessments and values that is publicly available or accessible. There may be a further preference for toxicity assessments that invited and considered public comment (as well as, but not in lieu of, external peer review).
- f. Other things being equal, toxicity values that are consistent with the duration of human exposure being assessed. For example, an externally peer-reviewed subchronic reference dose (RfD) should be preferred to an externally peer-reviewed chronic RfD when assessing an exposure of 2 years for non-cancer toxicity.

4. ADDITIONAL CONSIDERATIONS

- a. While there should be a preference for assessments using established methodologies to derive toxicity values, these methodologies should also be informed by the current best scientific information and practices. New assessment methodologies should provide reproducible results and meet quality assurance and quality control requirements.
- b. Parties involved in the risk assessment should seek to identify the best, or most scientifically defensible, toxicity value. When the DoD Component with lead agency responsibility for response actions is unable to identify a scientifically defensible toxicity value, for example, due to the lack of relevant toxicological studies or lack of an appropriate surrogate for a given chemical, the site-specific risk assessment should identify this as an uncertainty in the risk characterization.

ENCLOSURE 4

INITIATION OF ACTIONS RELATED TO ENVIRONMENTAL EC RELEASES

1. GENERAL. The DoD and regulators should strive to reach agreement on how and when to sample for ECs, the means to determine the nature and scope of the risk to human health and the environment, and the response actions needed in accordance with References (e) and (f).

2. PRINCIPLES FOR DETERMINING ACTIONS. These principles should be applied in determining appropriate site-specific actions related to ECs consistent with References (e) and (f).

a. Based on the site history and site inspection, determine whether there is a known or suspected release of an ECs that would trigger a need for sampling at a site and whether there is an appropriate analytical method.

b. If information exists to support sampling, develop a field sampling and analysis plan with agreed-upon data quality objectives. The quality assurance project plan for such efforts should comply with the EPA's Uniform Federal Policies for Quality Assurance Project Plans and for Implementing Environmental Quality Systems (References (n) and (o)). Among other things, the plan should identify an approved analytical method that meets the required detection limits for the ECs. In the event the sample quantification limit (SQL) is insufficient to analyze at the levels necessary to determine whether an unacceptable risk exists, other options such as analytic surrogates may be explored. If an analytical method with a sufficiently sensitive SQL is not available, the issue generally should be brought to the attention of the DoD Environmental Data Quality Work Group for consultation with counterparts in regulatory agencies.

c. All sources of toxicological and human health information should be searched to ascertain the best available science and identify uncertainties. (This process is more fully described in Enclosure 3.) In addition, if gaps in the human health science exist, recommendations should be made to appropriate State agencies, the EPA, or other agencies for additional studies to reduce uncertainty.

d. Baseline risk assessments shall integrate the toxicological data with site-specific exposure factors and provide the basis for determining the extent of the risk and for taking any necessary response action.

e. If agreement cannot be reached at the site level, the DoD Components should consult with their chain of command in accordance with established policies to determine an appropriate course of action. In such cases, the parties reserve all rights and authorities under existing laws and regulations.

f. Where agreement is not reached on cleanup levels, interim response actions to reduce risk (for example, plume migration control, provision of drinking water, land use controls, or monitoring) may be appropriate until risk-based values are identified.

## GLOSSARY

### PART I: ABBREVIATIONS AND ACRONYMS

ASD(EI&E)	Assistant Secretary of Defense for Energy, Installations, and Environment
DLA	Defense Logistics Agency
DoDD	DoD Directive
DASD(ESOH)	Deputy Assistant Secretary of Defense of Environment, Safety, and Occupational Health
EC	emerging contaminant
EPA	Environmental Protection Agency
IRIS	Integrated Risk Information System
PM	Program Manager
PPRTV	provisional peer-reviewed toxicity value
RfD	reference dose
SQL	sample quantification limit
U.S.C.	United States Code
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics

### PART II: DEFINITIONS

These terms and their definitions are for the purpose of this Instruction.

#### EC

As identified by the ASD(EI&E), a contaminant that:

Has a reasonably possible pathway to enter the environment;

Presents a potential unacceptable human health or environmental risk; and

Does not have regulatory standards based on peer-reviewed science, or the regulatory standards are evolving due to new science, detection capabilities, or pathways.

ECs are identified and assessed exclusively through a three-tiered process called “scan-watch-action.”

installation. A base, camp, post, station, yard, center, homeport facility for any ship, Government-owned and/or contractor-operated facility, or other activity under the jurisdiction of

the DoD, including any leased facility. Such term does not include any facility used primarily for civil works, rivers and harbors projects, or flood control projects.

IRIS. A database administered by EPA that contains toxicity data related to the risks to human health from chemicals and materials.

State. Includes the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, the United States Virgin Islands, and American Samoa.

United States. Includes the States as defined in this glossary as well as Midway and Wake Islands and any other territory or possession of the United States and the associated navigable waters, contiguous zones, and ocean waters of which the natural resources are under the exclusive management authority of the United States.

## POINT PAPER

### ON

#### CLEANUP LEVELS IN THE ABSENCE OF PROMULGATED STANDARDS

BLUF: Cleanup levels for contaminants without Federal or State promulgated standards are frequently determined based on a mathematical combination of toxicity information and site-specific exposure information.

- Defense Environmental Restoration Program Act (DERP), 10 U.S.C. § 2701(a)(2) and (c), requires response actions to releases of hazardous substances, pollutants and contaminants and does not require promulgated standards for determination of cleanup levels
- Cleanup levels are based on either legal determination of ARARs (“Appropriate or Relevant Applicable Requirements” – e.g. MCLs or state promulgated standards) OR upon “other reliable information” (See 40 C.F.R. § 300.430(e)(2)(i)). Other reliable information is derived from “to be considered (TBC)” criteria, advisories or guidance (40 C.F.R. § 300.400(g)(3)).
- TBC criteria include site-specific risk-based levels calculated via a mathematical combination of applicable toxicity values and site-specific exposure information
  - Selection of toxicity values requires identification of a scientifically recognized tier 1, 2, or 3 toxicity value under CERLCA (OSWER 9285.7-53, Human Health Toxicity Values in Superfund Risk Assessments, December 5, 2003; OSWER 9285.7-86, Tier 3 Toxicity Value White Paper, May 16, 2013; and DoDI 4715.18 Emerging Contaminants, June 2009)
  - Site-specific exposure is calculated by application of contaminant- and site-specific information, such as hours exposed during the day, amount of soil or drinking water ingested per day, years exposed out of a lifetime, or contaminant bioavailability, and can be as simple or complex as warranted
- Under DoDI 4715.18 and numerous U.S. EPA guidance, the selection of TBC criteria as cleanup levels depends on agreement between the DoD component and regulators
- Under DoDI 4715.18, Enclosure 4, “[W]here agreement is not reached on cleanup levels, interim response actions to reduce risk (for example, plume migration control, provision of drinking water, land use controls, or monitoring) may be appropriate until risk-based values are identified.”



## POINT PAPER

### ON

#### PROVISIONAL HEALTH ADVISORIES ARE NOT CERCLA MEDIA CLEANUP LEVELS

BLUF: Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) have U.S. EPA Office of Water (OW) provisional health advisories for drinking water, which are by definition, useful for managing risk associated with direct drinking water exposure. The science supporting these values is highly uncertain, dynamic, and EPA OW is currently revising their assessments.

- Where there are CERCLA ARARs (“Appropriate or Relevant Applicable Requirements” – e.g. state promulgated standards) for PFOS and PFOA, cleanup levels will be clearly defined and the AF will comply with such requirements

- In the absence of ARARs, the underlying toxicity associated with potential PFOS/PFOA exposure is too uncertain and dynamic to drive groundwater environmental cleanup at this time

- To assess human health risk and mitigate exposures, scientifically applicable toxicity values can be used IAW EPA and DoD policy (*OSWER 9285.7-53, Human Health Toxicity Values in Superfund Risk Assessments, December 5, 2003; OSWER 9285.7-86, Tier 3 Toxicity Value White Paper, May 16, 2013; and DoDI 4715.18 Emerging Contaminants, June 2009*)

  - Neither PFOS nor PFOA have available tier 1 or tier 2 toxicity values

  - U.S. EPA Office of Water (2009) derived first time ever “provisional” health advisory values for PFOS and PFOA, and the documentation for these values contain tier 3 noncancer toxicity values

  - In 2014, EPA OW released revised draft Health Effects Documents for PFOS and PFOA with new draft tier 3 toxicity values

    - EPA OW received numerous review comments on these draft documents and has yet to finalize the re-assessments

    - The draft EPA OW assessments for PFOS and PFOA demonstrates that the science has evolved significantly since 2009

    - Neither the final 2009 nor the draft 2014 EPA OW assessments for PFOS and PFOA have undergone the extensive expert peer-review (e.g. National Academy of Science review) usually associated with toxicity values that drive significant cleanup actions

- EPA Health Advisory values for other contaminants are not generally used as groundwater cleanup levels under CERCLA, and it is not clear that EPA is requiring such action based on these values for other entities

POINT PAPER  
ON  
TIER 3 TOXICITY VALUES FOR PFOS AND PFOA

BLUF: Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) have “tier 3” toxicity values from which human risk can be assessed; however, these values are highly uncertain, conflict with other credible sources of information (including ATSDR), and have neither undergone extensive expert peer-review nor an economic impact analysis usually associated with toxicity values driving significant cleanup actions.

- Defense Environmental Restoration Program Act (DERP), 10 U.S.C. § 2701(a)(2) and (c), requires response actions to releases of hazardous substances, pollutants and contaminants

- Response actions do not have to include full remediation, and may include interim actions to mitigation exposure and therefore, reduce human risk

- Neither PFOS nor PFOA are listed CERCLA hazardous substances (40 C.F.R. Part 302, Table 302.4), however are considered pollutants or contaminants under CERCLA

- There are no federal promulgated standards for either PFOS or PFOA. There are promulgated standards in Minnesota and draft standards in New Jersey. Several other states have guidance or advisory screening values.

- To assess human health risk, scientifically applicable toxicity values can be used IAW EPA and DoD policy (OSWER 9285.7-53, Human Health Toxicity Values in Superfund Risk Assessments, December 5, 2003; OSWER 9285.7-86, Tier 3 Toxicity Value White Paper, May 16, 2013; and DoDI 4715.18 Emerging Contaminants, June 2009)

- Neither PFOS nor PFOA have available tier 1 or tier 2 toxicity values

- Several sources of tier 3 information are available, are conflicting, and are highly uncertain, however can be used to assess risk to human health

- U.S. EPA Office of Water (2009) has derived noncancer toxicity values, from which they calculated a first time ever “provisional” health advisory values for PFOS and PFOA, and those toxicity values can be used to calculate risk-based screening levels

- By definition, provisional health advisory values reflect reasonable, health-based hazard concentrations above which action should be taken to reduce exposure to unregulated contaminants in drinking water

- Provisional health advisory values are not cleanup levels; however their derivation contains toxicity values that may be used to conduct a site-specific risk assessment

--- The provisional health advisory values for PFOS and PFOA are based on short-term exposure related to increased liver weights in mice and changes in lipid and thyroid hormone levels in monkeys, respectively.

-- In a 2009 draft assessment, ATSDR stated that data on PFOA and PFOS are insufficient to determine with a sufficient degree of certainty that potential effects are a concern to humans

-- ATSDR also stated in a 2013 Health Consult on a PFOA release in Decatur, Alabama that "...the association of PFC exposure and any disease or laboratory measurements remains inconsistent and inconclusive."

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**From:** Tesner, John E CIV USARMY HQDA ASA IEE (US)  
**To:** Morefield, Deborah A CIV OSD OUSD ATL (US); Long, Alexandria D CIV OSD OUSD ATL (US); Mach, Richard CIV OASN (EI&E), ODASN (Environment); Hicks, Otis L Jr CIV USAF SAF-IE (US); Kivimaki, Kevin W CIV DLA INSTALLATION SUPPORT (US)  
**CC:** Ramsdell, Richard C CIV USARMY HQDA ASA IEE (US); Mchugh, Morgan H CTR USARMY HQDA ASA IEE (US)  
**Sent:** 6/8/2016 7:36:01 PM  
**Subject:** PFC Article from Inside EPA (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

In case you haven't seen...

JT

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## EPA Plans PFC Superfund Screening Levels Following Water Advisories

Inside EPA June 7, 2016

As part of a planned update to Superfund cleanup calculators, the agency plans to develop by fall screening and removal levels for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), two chemicals for which EPA just issued drinking water health advisories for chronic exposure.

The plan signals impacts from the agency's drinking water health advisories for PFOA and PFOS, released May 19, will likely go beyond drinking water treatment to also include contaminated waste sites.

The screening levels for PFOA and PFOS, two types of perfluorinated chemicals (PFCs), are expected to be included in EPA's fall 2016 update of its Regional Screening Levels (RSLs), according to slides EPA presented at a state-EPA Northeast meeting late last month. The agency says it also plans to develop Removal Management Levels (RMLs) for the chemicals.

Superfund RSLs are used at hazardous waste sites to determine if further study of contamination is warranted. They can be used as "initial cleanup goals," but "are not de facto cleanup standards" and should not be used that way, the agency warns on its website.

RMLs are used to support an EPA decision to undertake a Superfund removal action when contamination poses an immediate threat to human health and the environment, although EPA's website cautions that final cleanup levels should be selected to address the site-specific threat.

EPA -- after significant pressure from environmentalists, a private sector attorney, states and others -- released long-awaited health advisories for the two persistent, non-stick chemicals in drinking water, significantly lowering the concentration at which EPA says are safe levels of the chemicals. Specifically, the agency's safety levels for individual or combined concentrations of PFOA and PFOS are 70 parts per trillion (ppt), applying to both short-term and chronic exposures.

While the advisories for lifetime exposures are not enforceable standards, the move was expected to prompt additional cleanups of the chemicals at fire-fighting training sites that have been relying on a less stringent cleanup level.

EPA headquarters will consult on a site-specific basis if screening or cleanup values are needed for a specific cleanup before the RSLs or RMLs are available, according to the slides, which EPA presented at a May 23 meeting on PFCs between the agency and Northeastern states sponsored by the Northeast Waste Management Officials' Association.

"In the interim, EPA will determine the most appropriate screening level for PFOA and PFOS based on the circumstances at each site," an EPA spokeswoman says in response to questions from Inside EPA.

The agency's slides also indicate that EPA considers the reference doses contained in the final health advisories to be a "Tier 3" toxicity value. Tier 3 toxicity values are generally only considered by risk assessors and managers for site-specific risk assessments if EPA's Integrated Risk Information System has not yet developed a risk value and if EPA lacks provisional peer reviewed toxicity values developed by its Research and Development and Superfund offices, according to the agency.

At press time, it was unclear whether EPA planned to develop RSLs for soil, air and drinking water, or just one or two of those media. RSL tables that EPA develops include comparison values for exposures to all three media.

Meanwhile, the Air Force says that in light of EPA's new health advisories for PFOA and PFOS, it will re-set the level it uses to determine if water supplies are contaminated with the chemicals. The service has been addressing water contamination stemming from firefighting training sites that used aqueous film forming foam -- which contains PFCs -- in order to combat petroleum-based fires. While the Air Force had been following EPA's less stringent short-term exposure health advisory of 400 ppt for PFOA and 200 ppt for PFOS, it says it will now apply EPA's stricter 70 ppt level "to determine if water supplies at its U.S. installations and in local communities are at risk for contamination," the Air Force Civil Engineer Center's (AFCEC) Public Affairs office says in a May 19 article.

The Air Force says that so far, it has tested for PFCs at 30 bases, with 202 residences showing levels exceeding EPA's new health advisories. "AFCEC will continue to reevaluate completed assessments using the revised health advisory levels as part of a continuous process," the article says.

In a March statement, the Air Force says it found that PFC-containing firefighting foam may have been released at 200 bases, and that AFCEC was sampling each base to confirm a release and determine if PFCs were in the surrounding groundwater. -- Suzanne Yohannan  
CLASSIFICATION: UNCLASSIFIED